

CLAIMS

*SUB B2*  
*cont* 1. An apparatus for driving an imaging device, comprising:

an accumulating period calculating processor that  
5 obtains an accumulating period of an imaging device, which has  
a light receiving element provided with first and second  
electrodes; and

a voltage control processor that controls voltage levels  
of said first and second electrodes during said accumulating  
10 period;

said voltage control processor fixing a voltage level of  
said first electrode and periodically changing a voltage level  
of said second electrode, in accordance with a length of said  
accumulating period, so that a charge pumping operation is  
15 performed.

2. The apparatus according to claim 1, wherein said imaging  
device is of a full frame transfer type, in which a light  
receiving element and a vertical transfer passage are  
common.

*A* 20 3. The apparatus according to claim <sup>2</sup><sub>1</sub>, wherein said first  
and second electrodes are provided for accumulating an  
electric charge in said light receiving element and  
transferring said electric charge through said vertical  
transfer passage.

25 4. The apparatus according to claim 1, wherein said voltage

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Cont 5 control processor fixes the voltage level of said first electrode at a first value, and periodically changes the voltage level of said second electrode between said first value and a second value, in accordance with said length of said accumulating period.

5. The apparatus according to claim 1, wherein said voltage control processor performs said charge pumping operation when said accumulating period is longer than a standard period.

6. The apparatus according to claim 5, further comprising  
10 a temperature sensor senses a temperature around said imaging device, said voltage control processor changes said standard period in accordance with said temperature.

7. The apparatus according to claim 1, wherein said voltage control processor shortens a period, by which the level of  
15 said second electrode is periodically changed, as said accumulating period becomes long.

8. The apparatus according to claim 6, further comprising a temperature sensor that senses a temperature around said imaging device, said voltage control processor changes a  
20 period, by which the level of said second electrode is periodically changed, in accordance with said temperature.

9. An apparatus for driving an imaging device of a full frame transfer type, in which a light receiving element and a vertical transfer passage are common, said apparatus

25 comprising:

an accumulating period calculating processor that obtains an accumulating period of said imaging device, said light receiving element being provided with first and second electrodes, an electric charge being accumulated in said light receiving element for said accumulating period in accordance with a voltage applied to each of said first and second electrodes; and

a voltage control processor that controls voltage levels of said first and second electrodes during said accumulating period, in accordance with a length of said accumulating period, so that a charge pumping operation is performed.

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